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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/672,527	09/26/2003	Osman Ahmed	2003P14889US	1203

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Siemens Corporation
Intellectual Property Department
170 Wood Avenue South
Iselin, NJ 08830

EXAMINER

JARRETT, RYAN A

ART UNIT	PAPER NUMBER
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2125

DATE MAILED: 05/31/2005

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

10/672,527

Applicant(s)

AHMED, OSMAN

Examiner

Ryan A. Jarrett

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --
Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 31 March 2005.
- 2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1,2,5-12 and 21-36 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1,2,5-12 and 21-36 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. _____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|--|---|
| 1) <input type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152) |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____ |

DETAILED ACTION***Response to Arguments***

1. Applicant's arguments filed 3/31/05 have been fully considered but they are not persuasive.

Applicant admits that Graviton teaches that the sensor assemblies can generate the control outputs, or actuator commands. But according to the Applicant, this teaching is not enabled because it is contained in the Summary of Invention. When the reference relied on expressly anticipates or makes obvious all of the elements of the claimed invention, the reference is presumed to be operable. Once such a reference is found, the burden is on applicant to provide facts rebutting the presumption of operability. In re Sasse, 629 F.2d 675, 207 USPQ 107 (CCPA 1980). Applicant has not met this burden. Graviton teaches that the sensor assemblies can generate the control outputs, or actuator commands. The Summary of Invention counts as part of the reference.

Applicant argues that Graviton does not teach that the control outputs are generated based on at least one set point and the process value obtained from the at least MEMs sensor device, as claimed in claim 1. In pg. 10 lines 21-28, Graviton discloses that indoor air quality can be monitored and controlled, with an actuator serving to control venting based on the monitoring. Thus, the actuator increases or decreases the venting if the air quality sensor value is not within a certain specification, or range, or set point. There is also a teaching here

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of determining when refrigerant needs to be replaced based on the monitoring of evolved hydrogen.

Also, in pg. 27 lines 10-26, it is disclosed, "the sensing of ingredients detects a situation requiring action to ensure that the final products conforms to the **specifications**, then a feedback or closed loop action may be taken so as to change aspects of the ingredients or the recipe or method of treatment of those ingredients in the process". If Applicant believes that any of these above teachings can be implemented without some sort of "set point" being involved, then the burden is on the Applicant to illustrate how this could be possible. What are the actuator control outputs based on, if not some deviation from a set point? And it has already been established above that these control outputs can be generated at the actual sensor assemblies.

Applicant's arguments concerning the EEPROM are not persuasive based on Graviton's disclosures at pg. 4 line 31 – pg. 5 line 2, pg. 15 line 31 – pg. 16 line 3, and pg. 16 lines 24-29. Applicant is attempting to look at various passages of the Graviton reference in a vacuum, with no regard at all to the teachings contained in other parts of the reference. In pg. 16 lines 24-29, Graviton merely cites RAM, ROM, and mass storage as examples. Graviton had already disclosed previously in the reference (pg. 4 line 31 – pg. 5 line 2) that the memory could also be Flash memory, or EEPROM.

Regarding the battery, based on Applicant's arguments, it is apparent that Applicant intends "secured" to the substrate to mean "physically secured" or "physically attached" to the substrate. Graviton may not explicitly teach this

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feature, however, the Applicant did not argue this feature after the previous rejection. Nonetheless, the feature is well known in the art and does not constitute a patentable contribution to the art. And the final rejection here is considered appropriate since Applicant did not argue this feature last time.

Claim Rejections - 35 USC § 112

2. The following is a quotation of the first paragraph of 35 U.S.C. 112:

The specification shall contain a written description of the invention, and of the manner and process of making and using it, in such full, clear, concise, and exact terms as to enable any person skilled in the art to which it pertains, or with which it is most nearly connected, to make and use the same and shall set forth the best mode contemplated by the inventor of carrying out his invention.

3. Claims 27, 31, and 35 are rejected under 35 U.S.C. 112, first paragraph, as failing to comply with the written description requirement. The claim(s) contains subject matter which was not described in the specification in such a way as to reasonably convey to one skilled in the relevant art that the inventor(s), at the time the application was filed, had possession of the claimed invention. The specification appears to generally disclose that the EEPROM stores configuration information. But it is not clear where the specification explicitly teaches that the EEPROM is configured to store information generated by an external device selecting less than all of the available functions of the apparatus to be enabled. Applicant may argue that the teaching is implied by the specification. In a like manner, the teaching can be considered implied by the disclosure at pg. 16 lines 24-29 of Graviton.

Claim Rejections - 35 USC § 102

4. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

5. Claims 1, 2, 5, 7, 11, 12, and 26-36 are rejected under 35 U.S.C. 102(b) as being clearly anticipated by WO 00/54237 to Graviton, Inc. ("Graviton"), supplied by the applicant. Graviton discloses:

1. An apparatus for use in a building automation system comprising: at least one microelectromechanical (MEMs) sensor device operable to generate a process value (e.g., pg. 4 lines 15-24, pg. 15 lines 14-16, pg. 17 lines 14-19); a processing circuit operable to convert the process value to an output digital signal configured to be communicated to another element of the building automation system (e.g., pg. 6 lines 19-29); and wherein the at least one MEMs sensor device and the processing circuit are integrated onto a first substrate (e.g., pg. 15 line 31 – pg. 16 line 3); and wherein the processing circuit is further operable to generate a first control output based on at least one set point (e.g., pg. 10 lines 21-28) and the process value obtained from the at least one MEMs sensor device, and wherein the output digital signal is representative of the first control output (e.g., pg. 6 lines 19-29).

2. The apparatus of claim 1 wherein the processing circuit includes a microelectronics A/D converter, the microelectronics A/D converter operable to receive the process value from the at least one MEMs sensor device and generate a digital sensor signal therefrom (e.g., pg. 4 lines 15-24, pg. 15 lines 21-30).

5. The apparatus of claim 1 wherein the at least one MEMs sensor device includes a plurality of MEMs sensor devices (e.g., pg. 15 lines 14-16).

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7. The apparatus of claim 1 wherein the first substrate is a semiconductor substrate (e.g., pg. 15 line 31 – pg. 16 line 3).

11. The apparatus of claim 1 further comprising an RF communication circuit operably coupled to the processing circuit (e.g., pg. 15 line 31 – pg. 16 line 3).

12. The apparatus of claim 1 further comprising an EEPROM operably coupled to the processing circuit (e.g., pg. 4 line 31 – pg. 5 line 2).

26. An apparatus for use in a building automation system, the apparatus comprising: at least one microelectromechanical (MEMS) sensor device operable to generate a process value (e.g., pg. 4 lines 15-24, pg. 15 lines 14-16, pg. 17 lines 14-19); a processing circuit operably connected to the at least one MEMS sensor device to receive the process value therefrom, the processing circuit operable to convert the process value to an output digital signal configured to be communicated to another element of the building automation system (e.g., pg. 6 lines 19-29); a programmable non-volatile memory operably coupled to the processing circuit (e.g., pg. 4 line 31 – pg. 5 line 2) and supported by the first substrate (e.g., pg. 15 line 31 – pg. 16 line 3); and wherein the at least one MEMS sensor device and the processing circuit are integrated onto a first substrate (e.g., pg. 15 line 31 – pg. 16 line 3).

27. The apparatus of claim 26, wherein the programmable non-volatile memory comprises an EEPROM (e.g., pg. 4 line 31 – pg. 5 line 2) configured to store information generated by an external device selecting less than all of the available functions of the apparatus to be enabled (e.g., pg. 16 lines 24-29).

28. The apparatus of claim 26, wherein the programmable non-volatile memory is further operable to store configuration information relating to the apparatus (e.g., pg. 16 lines 24-29).

29. The apparatus of claim 28, wherein the configuration information includes identification information for the apparatus (e.g., pg. 24 lines 9-13).

30. The apparatus of claim 29, wherein the configuration information includes a network address corresponding to the apparatus (e.g., pg. 24 lines 9-13).

31. The apparatus of claim 28, wherein the configuration information includes function-enabling information (e.g., pg. 16 lines 24-29), the function enabling information identifying as

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enabled less than all of the possible sensing functions available to be enabled on the sensor (e.g., pg. 16 lines 24-29).

32. The apparatus of claim 28, wherein the configuration information includes system RF communication parameters (e.g., pg. 13 line 24 – pg. 14 line 4, pg. 16 lines 24-29).

33. The apparatus of claim 27, wherein the EEPROM is further operable to store configuration information relating to the apparatus (e.g., pg. 16 lines 24-29).

34. The apparatus of claim 33, wherein the configuration information includes identification information for the apparatus (e.g., pg. 24 lines 9-13).

35. The apparatus of claim 33, wherein the configuration information includes function-enabling information (e.g., pg. 16 lines 24-29), the function enabling information identifying as enabled less than all of the possible sensing functions available to be enabled on the sensor (e.g., pg. 16 lines 24-29).

36. The apparatus of claim 27, wherein the EEPROM is integrated on to the first substrate (e.g., pg. 4 line 31 – pg. 5 line 2, pg. 15 line 31 – pg. 5 line 2).

Claim Rejections - 35 USC § 103

6. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

7. Claims 6, 8-10 and 21-25 are rejected under 35 U.S.C. 103(a) as being unpatentable over Graviton as applied to claim 1 above. Per claims 21 and 22, Graviton discloses:

21. An apparatus for use in a building automation system, the apparatus comprising: at least one microelectromechanical (MEMS) sensor device operable to generate a process value (e.g.,

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pg. 4 lines 15-24, pg. 15 lines 14-16, pg. 17 lines 14-19); a processing circuit operably connected to the at least one MEMs sensor device to receive the process value therefrom, the processing circuit operable to convert the process value to an output digital signal configured to be communicated to another element of the building automation system (e.g., pg. 6 lines 19-29); a battery operably connected to provide power to at least the processing circuit (e.g., pg. 15 lines 14-21); and wherein the at least one MEMs sensor device and the processing circuit are integrated onto a first substrate (e.g., pg. 15 line 31 – pg. 16 line 3).

22. The apparatus of claim 21 wherein the first substrate is a semiconductor substrate (e.g., pg. 15 line 31 – pg. 16 line 3).

Graviton does not explicitly disclose that the battery is a lithium ion battery coupled to a power management circuit, and secured to the first substrate, or disposed between a first and second substrate. However, such devices are well known in the art and have well known advantages, such as providing a compact device with little noise effects. Therefore, it would have been obvious to one having ordinary skill in the art at the time the invention to modify Graviton to include the above features due to their well-established advantages.

Conclusion

8. Applicant's amendment necessitated the new ground(s) of rejection presented in this Office action. Accordingly, **THIS ACTION IS MADE FINAL**. See MPEP § 706.07(a). Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

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A shortened statutory period for reply to this final action is set to expire **THREE MONTHS** from the mailing date of this action. In the event a first reply is filed within **TWO MONTHS** of the mailing date of this final action and the advisory action is not mailed until after the end of the **THREE-MONTH** shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than **SIX MONTHS** from the date of this final action.

9. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Ryan A. Jarrett whose telephone number is (571) 272-3742. The examiner can normally be reached on 10:00-6:30 M-F.

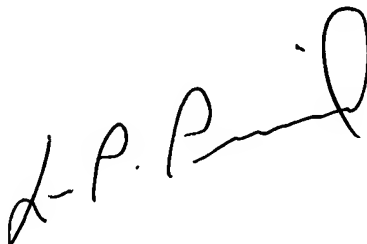
If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Leo Picard can be reached on (571) 272-3749. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

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Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

Ryan A. Jarrett
Examiner
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5/31/05

A handwritten signature in black ink, appearing to read "L. P. Picard", with a large, stylized loop at the end.

LEO PICARD
SUPERVISORY PATENT EXAMINER
TECHNOLOGY CENTER 2100